Appendix A

Claim Amendments

1. (Currently amended) Compounds A compound of formula I,

in which

R1 is hydroxyl, 1-4C-alkoxy, 3-7C-cycloalkoxy, 3-7C-cycloalkylmethoxy, 2,2-difluoroethoxy, or completely or predominantly fluorine-substituted 1-4C-alkoxy,

R2 is hydroxyl, 1-4C-alkoxy, 3-7C-cycloalkoxy, 3-7C-cycloalkylmethoxy, 2,2-difluoroethoxy, or completely or predominantly fluorine-substituted 1-4C-alkoxy,

- or in which
- R1 and R2 together are a 1-2C-alkylenedioxy group,
- R3 is hydrogen or 1-4C-alkyl,
- R31 is hydrogen or 1-4C-alkyl,
- wherein either, in a first embodiment (embodiment a)

 according to the present invention,
- R4 is -O-R41, in which
- R41 is hydrogen, 1-4C-alkyl, 1-4C-alkoxy-1-4C-alkyl, hydroxy-2-4C-alkyl, 1-7C-alkylcarbonyl, or completely or predominantly fluorine-substituted 1-4C-alkyl, and
- R5 is hydrogen or 1-4C-alkyl,
- or, in a second embodiment (embodiment b) according to the present invention,
- R4 is hydrogen or 1-4C-alkyl, and
- R5 is -0-R51, in which
- R51 is hydrogen, 1-4C-alkyl, 1-4C-alkoxy-1-4C-alkyl, hydroxy-2-4C-alkyl, 1-7C-alkylcarbonyl, or completely or predominantly fluorine-substituted 1-4C-alkyl,
- R6 is hydrogen, halogen, 1-4C-alkyl or 1-4C-alkoxy,
- R61 is hydrogen, 1-4C-alkyl or 1-4C-alkoxy-2-4C-alkyl,

- R7 is Het1, Har1, 3-7C-cycloalkyl, or 1-4C-alkyl substituted by R8, in which
- Het1 is optionally substituted by R71 and is a monocyclic
 monocylic 3- to 7-membered fully saturated heterocyclic
 ring radical,

which is bonded via a ring carbon atom to the carbonyl moiety of the -C(0)N(R61) - group, and

which comprises one nitrogen atom and optionally one further heteroatom selected from the group consisting of nitrogen, oxygen and sulfur, and, optionally,

to which ring one or two oxo groups are bonded, in which

- R71 is 1-4C-alkyl, or completely or partially fluorine-substituted 1-4C-alkyl,
- Harl is optionally substituted by R72 and/or R73, and is a 5- or 6-membered monocyclic unsaturated heteroaryl radical comprising 1 to 4 heteroatoms <u>independently</u> selected <u>independently</u> from the group consisting of oxygen, nitrogen and sulfur, in which
- R72 is halogen, 1-4C-alkyl, 1-4C-alkoxy, 1-4C-alkoxy-2-4C-alkoxy, 1-4C-alkylthio, cyano, 1-4C-alkoxycarbonyl, carboxyl, hydroxyl, -A-N(R721)R722, pyridyl, or completely or partially fluorine-substituted 1-4C-alkyl, in which

- A is a bond or 1-4C-alkylene,
- R721 is hydrogen or 1-4C-alkyl,
- R722 is hydrogen or 1-4C-alkyl,
- or R721 and R722 together and with inclusion of the nitrogen atom, to which they are attached, form a heterocyclic ring Het2, in which
- Het2 is optionally substituted by R723, and is a 3- to 7membered saturated or unsaturated monocyclic
 heterocyclic ring radical comprising the nitrogen atom,
 to which R721 and R722 are bonded, and optionally one to
 three further heteroatoms independently selected from
 the group consisting of oxygen, nitrogen and sulfur, in
 which
- R723 is 1-4C-alkyl,
- R73 is halogen, 1-4C-alkoxy, 1-4C-alkoxy-2-4C-alkoxy, 1-4C-alkylthio, hydroxyl, amino or mono- or di-1-4C-alkylamino,
- R8 is 1-4C-alkoxy, carbamoyl, carboxyl, 1-4C-alkoxycarbonyl, mono- or di-1-4C-alkylaminocarbonyl or N(R81)R82, in which
- R81 is hydrogen, 1-4C-alkyl, carbamoyl, amidino or 1-4C-alkylcarbonyl,
- R82 is hydrogen or 1-4C-alkyl,

- or R81 and R82 together and with inclusion of the nitrogen atom, to which they are attached, form a heterocyclic ring Het3, in which
- Het3 is optionally substituted by R811, and is a 3- to 7membered saturated monocyclic heterocyclic ring radical
 comprising the nitrogen atom, to which R81 and R82 are
 bonded, and optionally one further heteroatom selected
 from the group consisting of oxygen, nitrogen and
 sulfur, in which

R811 is 1-4C-alkyl,

- or an enantiomer, salt, N-oxide, salt of an N-oxide or enantiomer of an N-oxide thereof
- and the salts, the N-oxides and the salts of the N-oxides of these compounds.
- 2. (Currently amended) Compounds A compound of formula I according to claim 1 in which
- R1 is 1-2C-alkoxy, 3-5C-cycloalkoxy, 3-5C-cycloalkylmethoxy, 2,2-difluoroethoxy, or completely or predominantly fluorine-substituted 1-2C-alkoxy,
- R2 is 1-2C-alkoxy, 3-5C-cycloalkoxy, 3-5C-cycloalkylmethoxy, 2,2-difluoroethoxy, or

completely or predominantly fluorine-substituted 1-2C-alkoxy,

R3 is hydrogen,

R31 is hydrogen,

wherein either, in a first embodiment (embodiment a)

according to the present invention,

R4 is -O-R41, in which

R41 is hydrogen or 1-4C-alkylcarbonyl, and

R5 is hydrogen,

or, in a second embodiment (embodiment b) according to the present invention,

R4 is hydrogen, and

R5 is -O-R51, in which

R51 is hydrogen or 1-4C-alkylcarbonyl,

R6 is hydrogen,

R61 is hydrogen,

R7 is Het1, Har1, 3-7C-cycloalkyl, or 1-4C-alkyl substituted by R8, in which

Het1 is optionally substituted by R71 and is a monocyclic 5- to 7-membered fully saturated heterocyclic ring radical,

which is bonded via a ring carbon atom to the carbonyl moiety of the -C(0)N(R61) - group, and

which comprises one nitrogen atom and optionally one further heteroatom selected from the group consisting of nitrogen, oxygen and sulfur, and, optionally,

to which ring one or two oxo groups are bonded, in which R71 is 1-4C-alkyl, or completely or partially fluorine-substituted 1-4C-alkyl,

Harl is optionally substituted by R72 and/or R73, and is either a 6-membered monocyclic unsaturated heteroaryl radical comprising one or two nitrogen atoms,

or a 5-membered monocyclic unsaturated heteroaryl radical comprising 1 to 4 heteroatoms <u>independently</u> selected <u>independently</u> from the group consisting of oxygen, nitrogen and sulfur, in which

R72 is halogen, 1-4C-alkyl, 1-4C-alkoxy, 1-4C-alkoxy-2-4C-alkoxy, 1-4C-alkylthio, cyano, 1-4C-alkoxycarbonyl, carboxyl, hydroxyl, -A-N(R721)R722, pyridyl, or completely or partially fluorine-substituted 1-4C-alkyl, in which

A is a bond or 1-4C-alkylene,

R721 is hydrogen or 1-4C-alkyl,

R722 is hydrogen or 1-4C-alkyl,

- or R721 and R722 together and with inclusion of the nitrogen atom, to which they are attached, form a heterocyclic ring Het2, in which
- Het2 is optionally substituted by R723, and is a 3- to 7membered saturated or unsaturated monocyclic
 heterocyclic ring radical comprising the nitrogen atom,
 to which R721 and R722 are bonded, and optionally one to
 three further heteroatoms independently selected from
 the group consisting of oxygen, nitrogen and sulfur, in
 which
- R723 is 1-4C-alkyl,
- R73 is halogen, 1-4C-alkoxy, 1-4C-alkoxy-2-4C-alkoxy, 1-4C-alkylthio, hydroxyl, amino or mono- or di-1-4C-alkylamino,
- R8 is 1-4C-alkoxy, carbamoyl, mono- or di-1-4C-alkylaminocarbonyl or -N(R81)R82, in which
- R81 is hydrogen, 1-4C-alkyl, carbamoyl, amidino or 1-4C-alkylcarbonyl,
- R82 is hydrogen or 1-4C-alkyl,
- or R81 and R82 together and with inclusion of the nitrogen atom, to which they are attached, form a heterocyclic ring Het3, in which

Het3 is optionally substituted by R811, and is a 3- to 7membered saturated monocyclic heterocyclic ring radical
comprising the nitrogen atom, to which R81 and R82 are
bonded, and optionally one further heteroatom selected
from the group consisting of oxygen, nitrogen and
sulfur, in which

R811 is 1-4C-alkyl,

- or an enantiomer, salt, N-oxide, salt of an N-oxide or enantiomer of an N-oxide thereof
- and the salts, the N-oxides and the salts of the N-oxides of these compounds.
- 3. (Currently amended) Compounds A compound of formula I according to claim 1 in which
- R1 is 1-2C-alkoxy, 3-5C-cycloalkoxy, 3-5C-cycloalkoxy, 3-5C-cycloalkylmethoxy, 2,2-difluoroethoxy, or completely or predominantly fluorine-substituted 1-2C-alkoxy,
- R2 is 1-2C-alkoxy, 3-5C-cycloalkoxy, 3-5C-cycloalkylmethoxy, 2,2-difluoroethoxy, or completely or predominantly fluorine-substituted 1-2C-alkoxy,
- R3 is hydrogen,

- R31 is hydrogen,
- R4 is -O-R41, in which
- R41 is 1-4C-alkylcarbonyl or hydrogen,
- R5 is hydrogen,
- R6 is hydrogen,
- R61 is hydrogen,
- R7 is Het1, Har1, 3-7C-cycloalkyl, or 1-4C-alkyl substituted by R8, in which
- Het1 is optionally substituted by R71 and is a <u>monocyclic</u>

 monocylic 5- to 7-membered fully saturated heterocyclic ring radical,
 - which is bonded via a ring carbon atom to the carbonyl moiety of the -C(O)N(R61) group, and which comprises one nitrogen atom, and, optionally,
- R71 is 1-4C-alkyl, or completely or partially fluorine-substituted 1-2C-alkyl,

to which ring one oxo group is bonded, in which

- Harl is optionally substituted by R72 and/or R73, and is a 6-membered monocyclic unsaturated heteroaryl radical comprising one or two nitrogen atoms, in which
- R72 is halogen, 1-4C-alkoxy, 1-4C-alkoxy-ethoxy, 1-2C-alkylthio, hydroxyl, amino or mono- or di-1-2C-alkylamino,

- R73 is halogen, 1-4C-alkoxy, 1-2C-alkoxy-ethoxy, 1-2C-alkylthio, hydroxyl, amino or mono- or di-1-2C-alkylamino,
- R8 is 1-4C-alkoxy, carbamoyl, mono- or di-1-4C-alkylaminocarbonyl or -N(R81)R82, in which
- R81 is hydrogen, 1-4C-alkyl, carbamoyl or 1-4C-alkylcarbonyl,
- R82 is hydrogen or 1-4C-alkyl,

1 t

- or R81 and R82 together and with inclusion of the nitrogen atom, to which they are attached, form a heterocyclic ring Het3, in which
- Het3 is optionally substituted by R811, and is a 3- to 7membered saturated monocyclic heterocyclic ring radical
 comprising the nitrogen atom, to which R81 and R82 are
 bonded, and optionally one further heteroatom selected
 from the group consisting of oxygen, nitrogen and
 sulfur, in which
- R811 is 1-2C-alkyl,
- or an enantiomer, salt, N-oxide, salt of an N-oxide or enantiomer of an N-oxide thereof
- and the salts, the N-oxides and the salts of the N-oxides of these compounds.

- 4. (Currently amended) Compounds A compound of formula I according to claim 1 in which
- R1 is 1-2C-alkoxy, 2,2-difluoroethoxy, or completely or predominantly fluorine-substituted 1-2C-alkoxy,
- R2 is 1-2C-alkoxy, 2,2-difluoroethoxy, or completely or predominantly fluorine-substituted 1-2C-alkoxy,
- R3 is hydrogen,
- R31 is hydrogen,
- R4 is -O-R41, in which
- R41 is hydrogen,
- R5 is hydrogen,
- R6 is hydrogen,
- R61 is hydrogen,
- R7 is Het1, Har1, 3-5C-cycloalkyl, or 1-4C-alkyl substituted by R8, in which
- Het1 is 1-N-(R71)-piperdin-4-yl or pyrrolidin-2-on-5-yl, in which
- R71 is 1-4C-alkyl,
- Har1 is optionally substituted by R72 and/or R73, and is pyridinyl, in which
- R72 is 1-4C-alkoxy,
- R73 is 1-4C-alkoxy,

- R8 is 1-4C-alkoxy, carbamoyl, mono- or di-1-4C-alkylaminocarbonyl or -N(R81)R82, in which
- R81 is 1-4C-alkyl, carbamoyl or 1-4C-alkylcarbonyl,
- R82 is hydrogen or 1-4C-alkyl,
- or R81 and R82 together and with inclusion of the nitrogen atom, to which they are attached, form a heterocyclic ring Het3, in which
- Het3 is piperidin-1-yl, pyrrolidin-1-yl, 4-N-(R811)piperazin-1-yl, 4-N-(R811)-homopiperazin-1-yl,
 homopiperidin-1-yl, morpholin-4-yl or thiomorpholin-4yl, in which
- R811 is 1-2C-alkyl,
- or an enantiomer, salt, N-oxide, salt of an N-oxide or enantiomer of an N-oxide thereof
- and the salts, the N-oxides and the salts of the N-oxides of these compounds.
- 5. (Currently amended) Compounds A compound of formula I according to claim 1 in which
- R1 is 1-2C-alkoxy, 2,2-difluoroethoxy, or completely or predominantly fluorine-substituted 1-2C-alkoxy,
- R2 is 1-2C-alkoxy, 2,2-difluoroethoxy, or completely or predominantly fluorine-substituted 1-2C-alkoxy,

R3 is hydrogen,

R31 is hydrogen,

R4 is -O-R41, in which

R41 is hydrogen,

R5 is hydrogen,

R6 is hydrogen,

R61 is hydrogen,

R7 is Het1, Har1, 3-5C-cycloalkyl, or 1-4C-alkyl substituted by R8, in which

Het1 is 1-N-(R71)-piperdin-4-yl or pyrrolidin-2-on-5-yl, in which

R71 is 1-4C-alkyl,

Har1 is 2,6-dimethoxypyridin-3-yl,

R8 is 1-4C-alkoxy, carbamoyl, mono- or di-1-4C-alkylaminocarbonyl or -N(R81)R82, in which

R81 is 1-4C-alkyl, carbamoyl or 1-4C-alkylcarbonyl,

R82 is hydrogen or 1-4C-alkyl,

or R81 and R82 together and with inclusion of the nitrogen atom, to which they are attached, form a heterocyclic ring Het3, in which

Het3 is piperidin-1-yl,

or an enantiomer, salt, N-oxide, salt of an N-oxide or enantiomer of an N-oxide thereof

and the salts, the N-oxides and the salts of the N-oxides of these compounds.

- 6. (Currently amended) Compounds A compound of formula I according to claim 1 in which
- R1 is methoxy or ethoxy,
- R2 is methoxy, ethoxy, difluoromethoxy or 2,2-difluoroethoxy,
- R3 is hydrogen,
- R31 is hydrogen,
- R4 is -O-R41, in which
- R41 is hydrogen,
- R5 is hydrogen,
- R6 is hydrogen,
- R61 is hydrogen,
- R7 is Het1, Har1, cyclopropyl, or 1-4C-alkyl substituted by R8, in which
- Het1 is 1-N-(R71)-piperdin-4-yl or pyrrolidin-2-on-5-yl, in which

R71 is methyl,

Harl is 2,6-dimethoxypyridin-3-yl,

R8 is methoxy, carbamoyl, dimethylaminocarbonyl or - N(R81)R82, in which

R81 is methyl, carbamoyl or acetyl,

R82 is hydrogen or methyl,

or R81 and R82 together and with inclusion of the nitrogen atom, to which they are attached, form a heterocyclic ring Het3, in which

Het3 is piperidin-1-yl,

- or an enantiomer, salt, N-oxide, salt of an N-oxide or enantiomer of an N-oxide thereof
- and the salts, the N-oxides and the salts of the N-oxides of these compounds.
- 7. (Currently amended) Compounds A compound of formula I according to claim 1 any of the preceding claims comprising one or more of the following:
- R1 is methoxy,
- R2 is methoxy, ethoxy, difluoromethoxy or 2,2-difluoroethoxy, and

R3 and R31 are hydrogen, [[;]]

R4 is -O-R41, in which

R41 is hydrogen, and

R5 is hydrogen, [[;]]

R6 is hydrogen, [[;]]

R61 is hydrogen, [[; and]]

- the radical R7C(O)N(R61) is bonded to the meta or para position with respect to the binding position [[, in]]

 at which the phenyl group is bonded to the phenanthridine ring system;
- or an enantiomer, salt, N-oxide, salt of an N-oxide or enantiomer of an N-oxide thereof
- and the salts, the N-oxides and the salts of the N-oxides of these compounds.
- 8. (Currently amended) Compounds A compound of formula I according to claim 1 selected from the group consisting of

N-[3-((2RS, 4aRS, 10bRS)-9-Ethoxy-2-hydroxy-8-methoxy-

1,2,3,4,4a,10b-hexahydro-phenanthridin-6-yl)-phenyl]-2-methoxy-acetamide,

N-[4-((2RS, 4aRS, 10bRS)-9-Ethoxy-2-hydroxy-8-methoxy-

1,2,3,4,4a,10b-hexahydro-phenanthridin-6-yl)-phenyl]-3-methoxy-propionamide,

Cyclopropanecarboxylic acid [3-((2RS,4aRS,10bRS)-9-ethoxy-

2-hydroxy-8-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-6-yl)-phenyl]-amide,

N-[4-((2RS, 4aRS, 10bRS)-9-Ethoxy-2-hydroxy-8-methox9-8-methox9-

1,2,3,4,4a,10b-hexahydro-phenanthridin-6-yl)-phenyl]-3-

```
piperidin-1-yl-propionamide,
N-[4-((2RS, 4aRS, 10bRS)-9-Ethoxy-2-hydroxy-8-methoxy-
1,2,3,4,4a,10b-hexahydro-phenanthridin-6-yl)-phenyl]-N',N'-
dimethyl-succinamide,
1-Methyl-piperidine-4-carboxylic acid [4-((2RS, 4aRS, 10bRS)-
9-ethoxy-2-hydroxy-8-methoxy-1,2,3,4,4a,10b-hexahydro-
phenanthridin-6-yl)-phenyl]-amide,
Cyclopropanecarboxylic acid [4-((2RS,4aRS,10bRS)-9-ethoxy-
2-hydroxy-8-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-
6-yl)-phenyl]-amide,
N-[3-((2RS, 4aRS, 10bRS)-9-Ethoxy-2-hydroxy-8-methoxy-
1,2,3,4,4a,10b-hexahydro-phenanthridin-6-yl)-phenyl]-3-
methoxy-propionamide,
N-[4-((2RS, 4aRS, 10bRS)-9-Ethoxy-2-hydroxy-8-methoxy-
1,2,3,4,4a,10b-hexahydro-phenanthridin-6-yl)-phenyl]-2-
methoxy-acetamide,
N-[3-((2RS, 4aRS, 10bRS)-9-Ethoxy-2-hydroxy-8-methoxy-
1,2,3,4,4a,10b-hexahydro-phenanthridin-6-yl)-phenyl]-3-
piperidin-1-yl-propionamide,
1-Methyl-piperidine-4-carboxylic acid [3-((2RS, 4aRS, 10bRS)-
9-ethoxy-2-hydroxy-8-methoxy-1,2,3,4,4a,10b-hexahydro-
phenanthridin-6-yl)-phenyl]-amide,
N-[3-((2RS, 4aRS, 10bRS)-9-Ethoxy-2-hydroxy-8-methoxy-
```

```
1,2,3,4,4a,10b-hexahydro-phenanthridin-6-yl)-phenyl]-N',N'-
dimethyl-succinamide,
Dimethylamino-N-[4-((2RS, 4aRS, 10bRS)-9-ethoxy-2-hydroxy-8-
methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-6-yl)-
phenyl]-butyramide,
Dimethylamino-N-[3-((2RS, 4aRS, 10bRS)-9-ethoxy-2-hydroxy-8-
methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-6-yl)-
phenyl]-butyramide,
2-Acetylamino-N-[3-((2RS, 4aRS, 10bRS)-9-ethoxy-2-hydroxy-8-
methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-6-yl)-
phenyl]-acetamide,
5-0xo-pyrrolidine-2-carboxylic acid [3-((2RS, 4aRS, 10bRS)-9-
ethoxy-2-hydroxy-8-methoxy-1,2,3,4,4a,10b-hexahydro-
phenanthridin-6-yl)-phenyl]-amide,
N-[3-((2RS, 4aRS, 10bRS)-9-Ethoxy-2-hydroxy-8-methoxy-
1,2,3,4,4a,10b-hexahydro-phenanthridin-6-yl)-phenyl]-2,6-
dimethoxy-nicotinamide,
(2RS, 4aRS, 10bRS) -6-[3-(3-carbamoyl-propanoylamino)-phenyl]-
9-ethoxy-8-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-
2-o1,
N-[3-((2RS, 4aRS, 10bRS) - 9-Ethoxy-2-hydroxy-8-methoxy-
1,2,3,4,4a,10b-hexahydro-phenanthridin-6-yl)-phenyl]-3-
ureido-propionamide, [[and]]
```

Cyclopropanecarboxylic acid [3-((3SR,4aRS,10bRS)-9-ethoxy-3-hydroxy-8-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-6-yl)-phenyl]-amide and the enantiomers, as well as the salts, [[the]] N-oxides, and the salts of the N-oxides of these compounds and enantiomers of the N-oxides thereof.

9. (Currently amended) Compounds A compound of formula I according to claim 1 any of the preceding claims, which has [[have]] with respect to the positions 4a and 10b the configuration shown in formula I*:

or a salt, N-oxide or salt of an N-oxide thereof

and the salts, the N-oxides and the salts of the N-oxides

of these compounds.

10. (Currently amended) Compounds A compound of formula I according to claim 1 any of the preceding claims, which has [[have]] with respect to the positions 2, 4a and 10b the configuration shown in formula Ia****, or, which has [[have]] with respect to the positions 3, 4a and 10b the configuration shown in formula Ib****:

or a salt, N-oxide or salt of an N-oxide thereof

and the salts, the N-oxides and the salts of the N-oxides

of these compounds.

11. (Canceled)

12. (Currently amended) A pharmaceutical composition comprising one or more compounds of formula I as claimed in claim 1, or a pharmaceutically acceptable salt, enantiomer, N-oxide, salt of an N-oxide or enantiomer of an N-oxide thereof, together with a pharmaceutically acceptable excipient and/or vehicle customary pharmaceutical excipients and/or vehicles.

13. - **14.** (Canceled)

- 15. (Currently amended) A method for treating an illness illnesses in a patient comprising administering to said patient a therapeutically effective amount of a compound of formula I as claimed in claim 1, or a pharmaceutically acceptable salt, enantiomer, N-oxide, salt of an N-oxide or enantiomer of an N-oxide thereof.
- 16. (Currently amended) A method for treating <u>an</u> airway disorders disorder in a patient comprising administering to said patient a therapeutically effective amount of a compound of formula I as claimed in claim 1, or a pharmaceutically acceptable salt, enantiomer, N-oxide, salt of an N-oxide or enantiomer of an N-oxide thereof.

17. (New) A method for treating a PDE-mediated disorder in a patient comprising administering to said patient a therapeutically effective amount of a compound of formula I as claimed in claim 1, or a pharmaceutically acceptable salt, enantiomer, N-oxide, salt of an N-oxide or enantiomer of an N-oxide thereof.